OIPE IAP47
JAN 27 2006
PATENT & TRADEMARK OFFICE

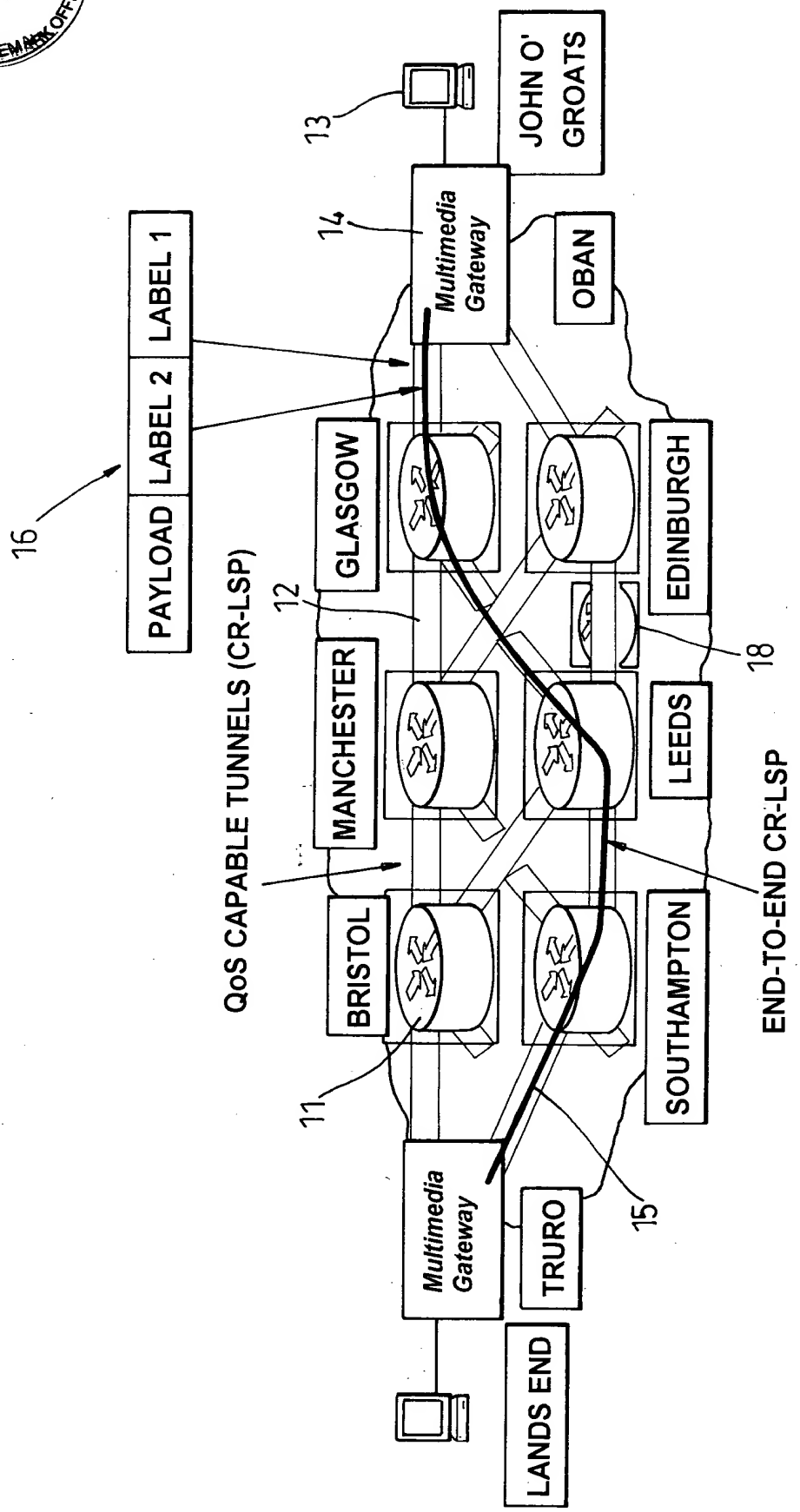


Fig. 1

OIPE IAP47
JAN 27 2006
PATENT & TRADEMARK OFFICE

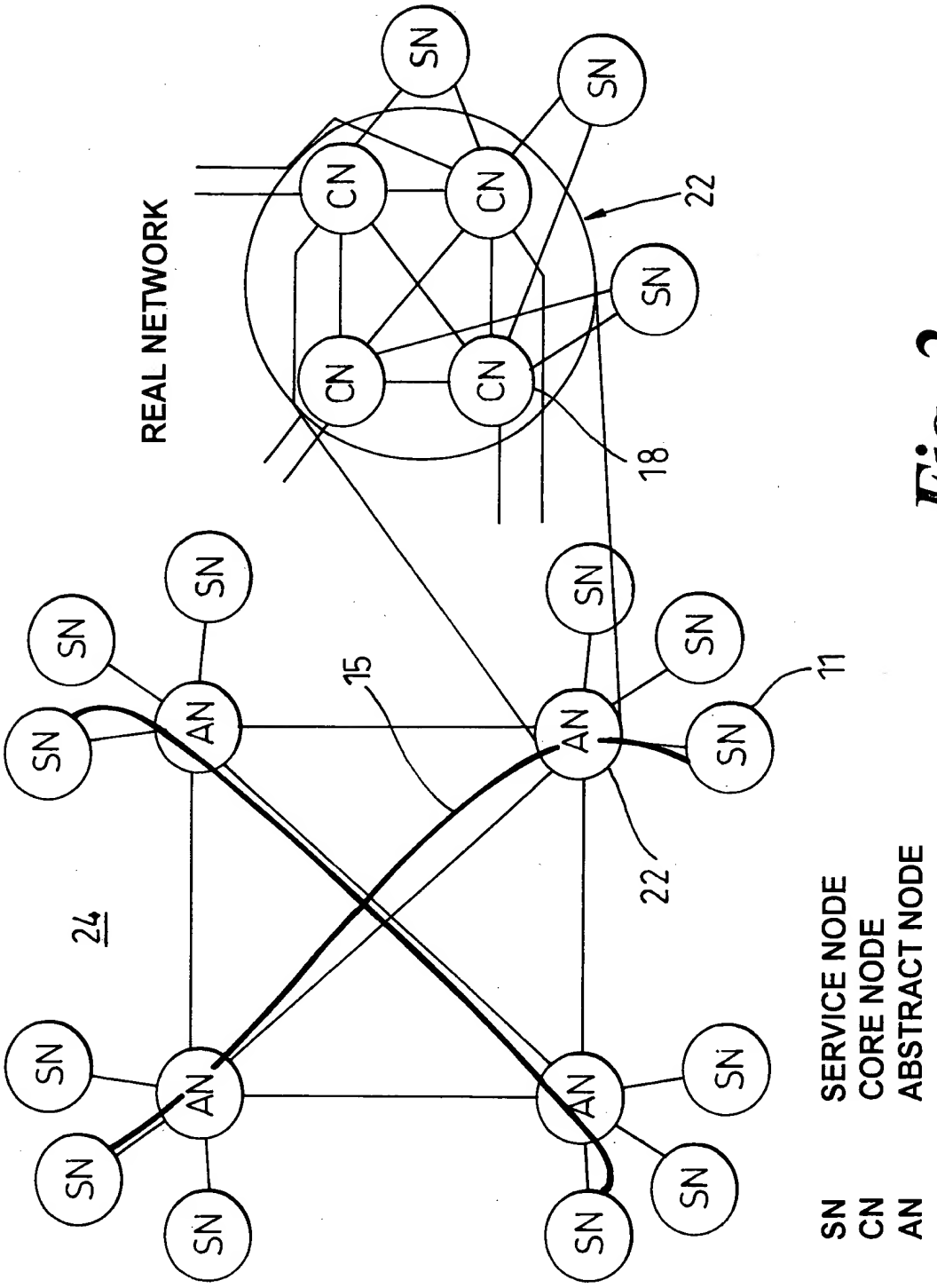


Fig. 2

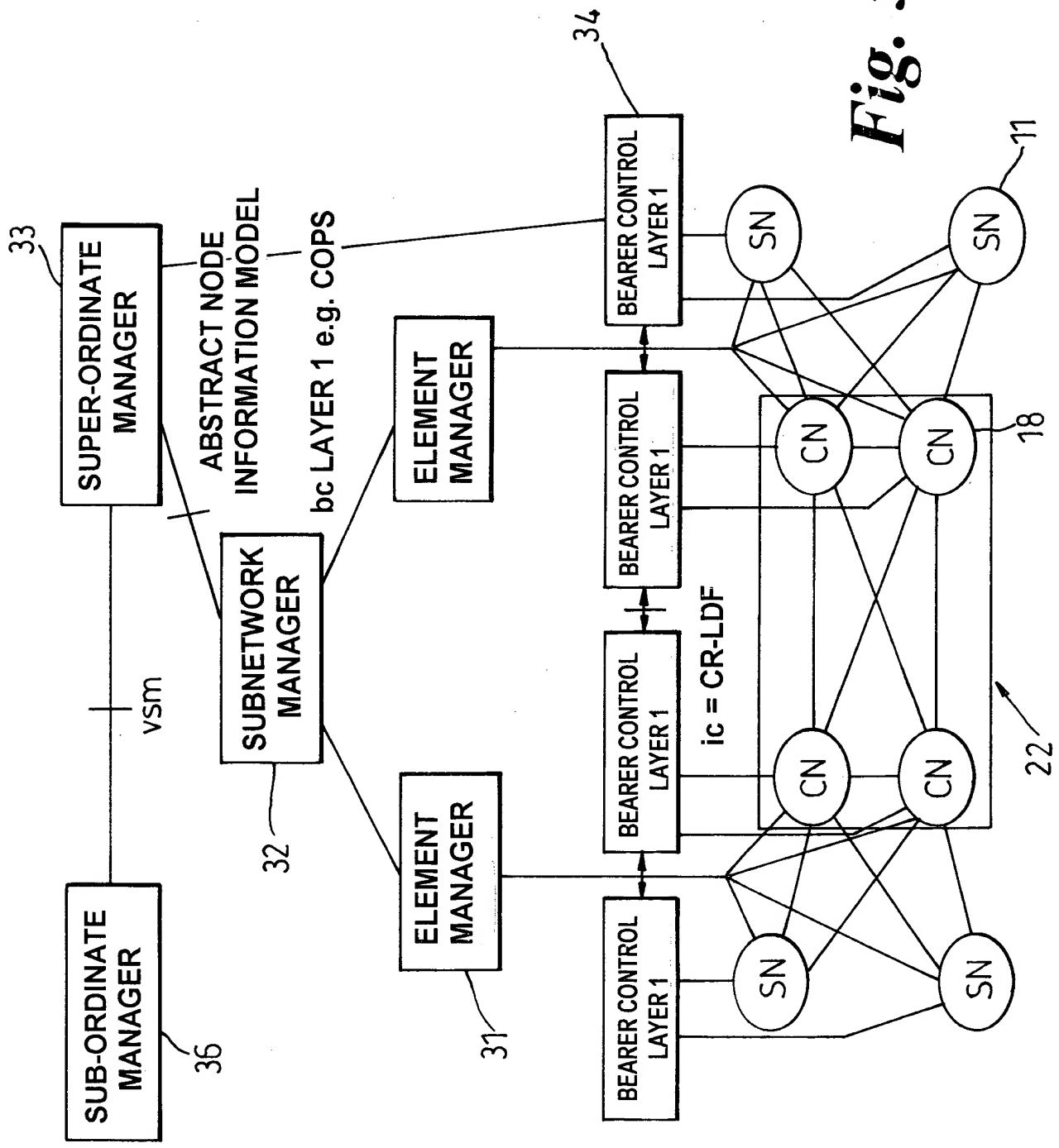

SUPER-ORDINATE MANAGER
33
ABSTRACT NODE INFORMATION MODEL
bc LAYER 1 e.g. COPS
SUBNETWORK MANAGER
32
vsm
SUB-ORDINATE MANAGER
36
ELEMENT MANAGER
ELEMENT MANAGER
31
34
BEARER CONTROL LAYER 1
BEARER CONTROL LAYER 1
BEARER CONTROL LAYER 1
BEARER CONTROL LAYER 1
ic = CR-LDF
SN
SN
SN
SN
CN
CN
CN
CN
11
18
22

Fig. 3

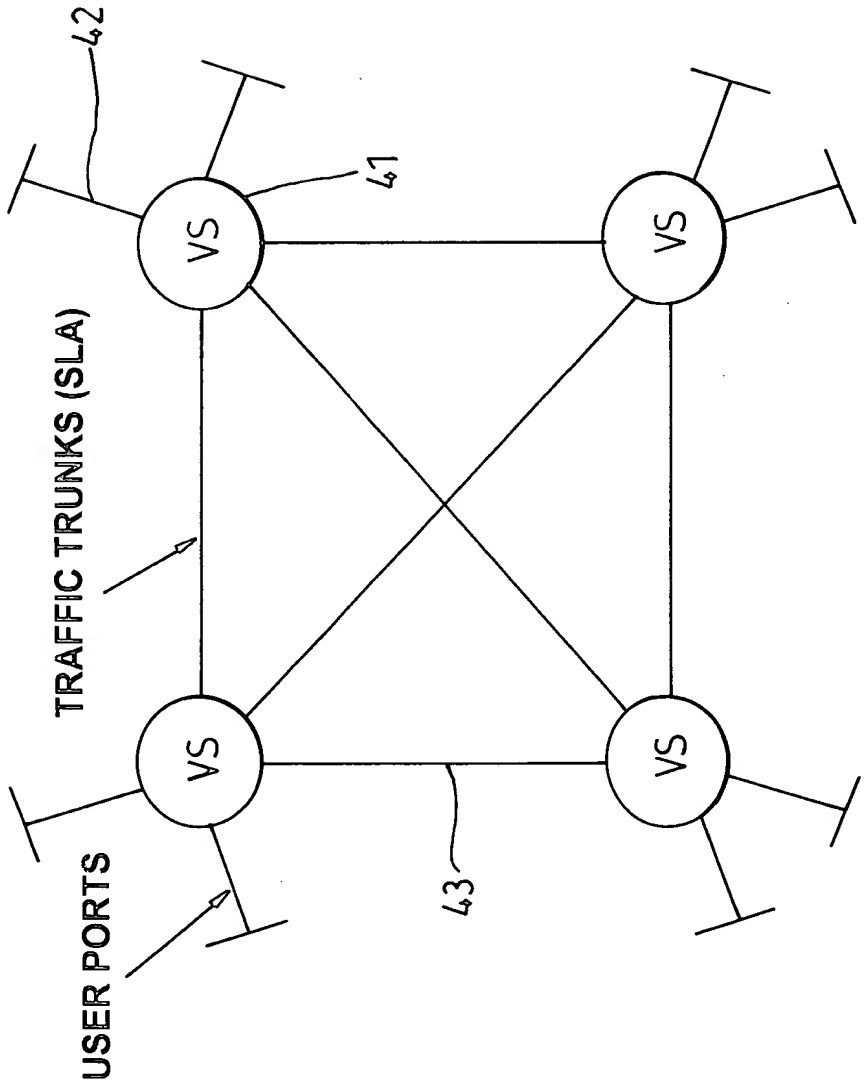


Fig. 4

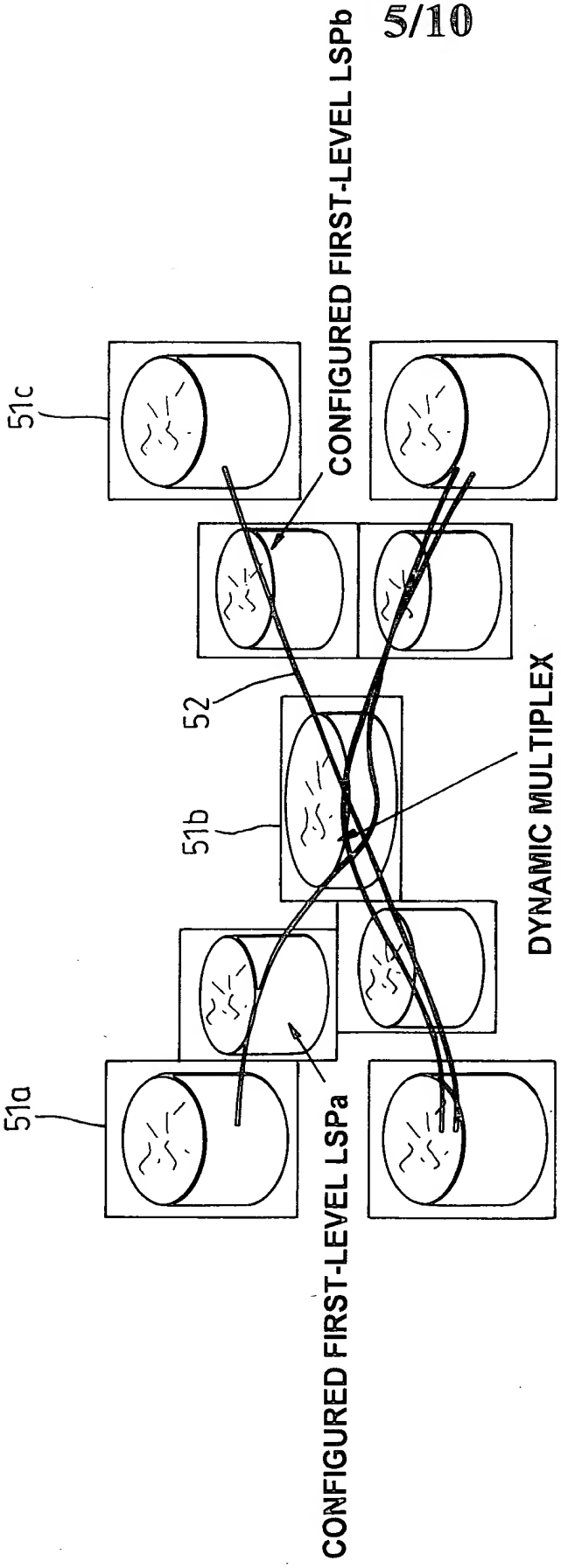

CONFIGURED FIRST-LEVEL LSPb
51c
52
51b
DYNAMIC MULTIPLEX
ER-LSPx
51a
CONFIGURED FIRST-LEVEL LSPa

Fig. 5

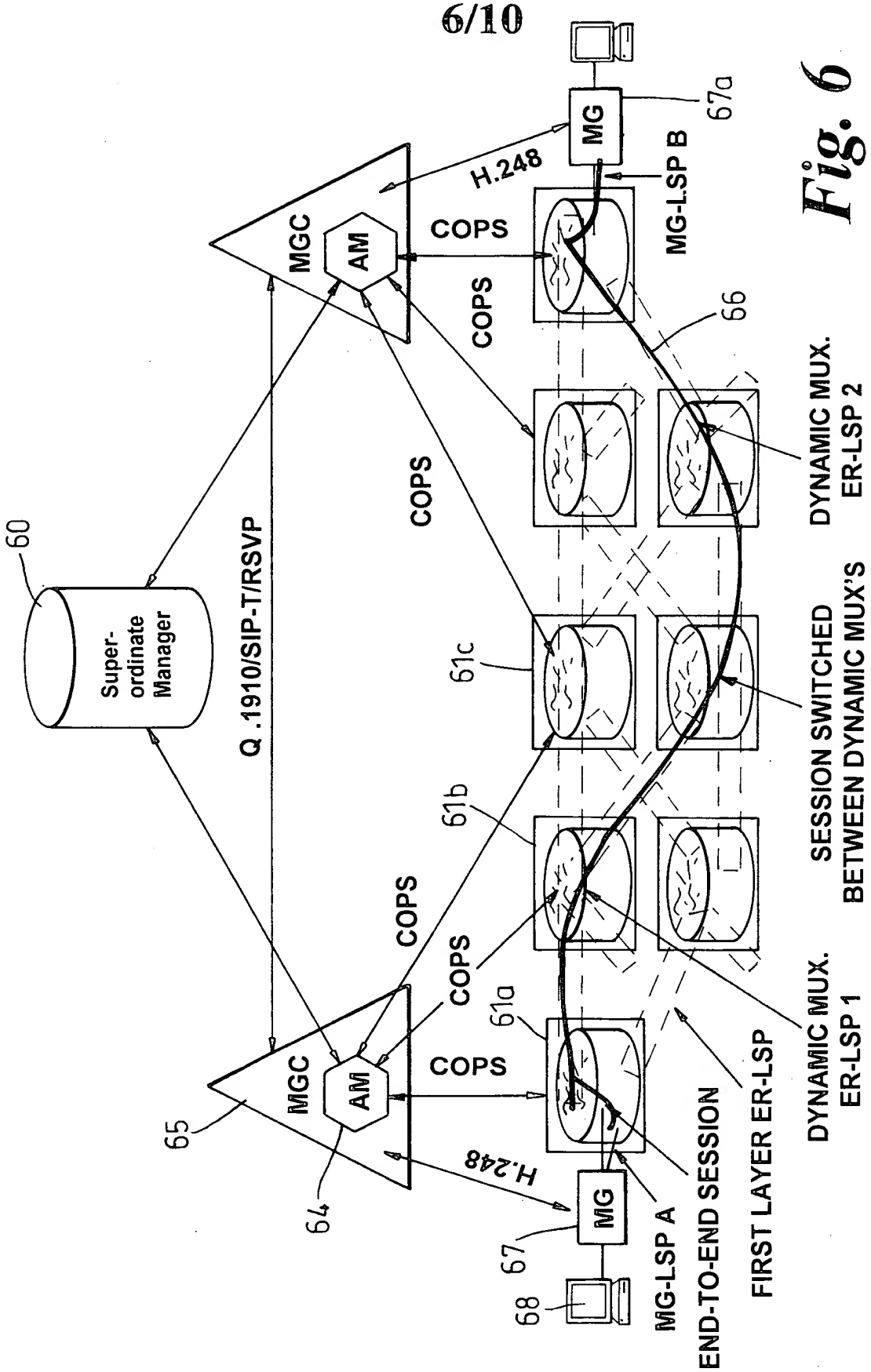

60
Super-ordinate Manager
Q .1910/SIP-T/RSVP
MGC
AM
COPS
H.248
65
64
MG
67
68
67a
MG-LSP A
MG-LSP B
END-TO-END SESSION
FIRST LAYER ER-LSP
61a
61b
61c
66
DYNAMIC MUX. ER-LSP 1
SESSION SWITCHED BETWEEN DYNAMIC MUX'S ER-LSP 1 AND ER-LSP 2
DYNAMIC MUX. ER-LSP 2
LOCAL TANDEM
NATIONAL TANDEM
LOCAL TANDEM
LOCAL

Fig. 6

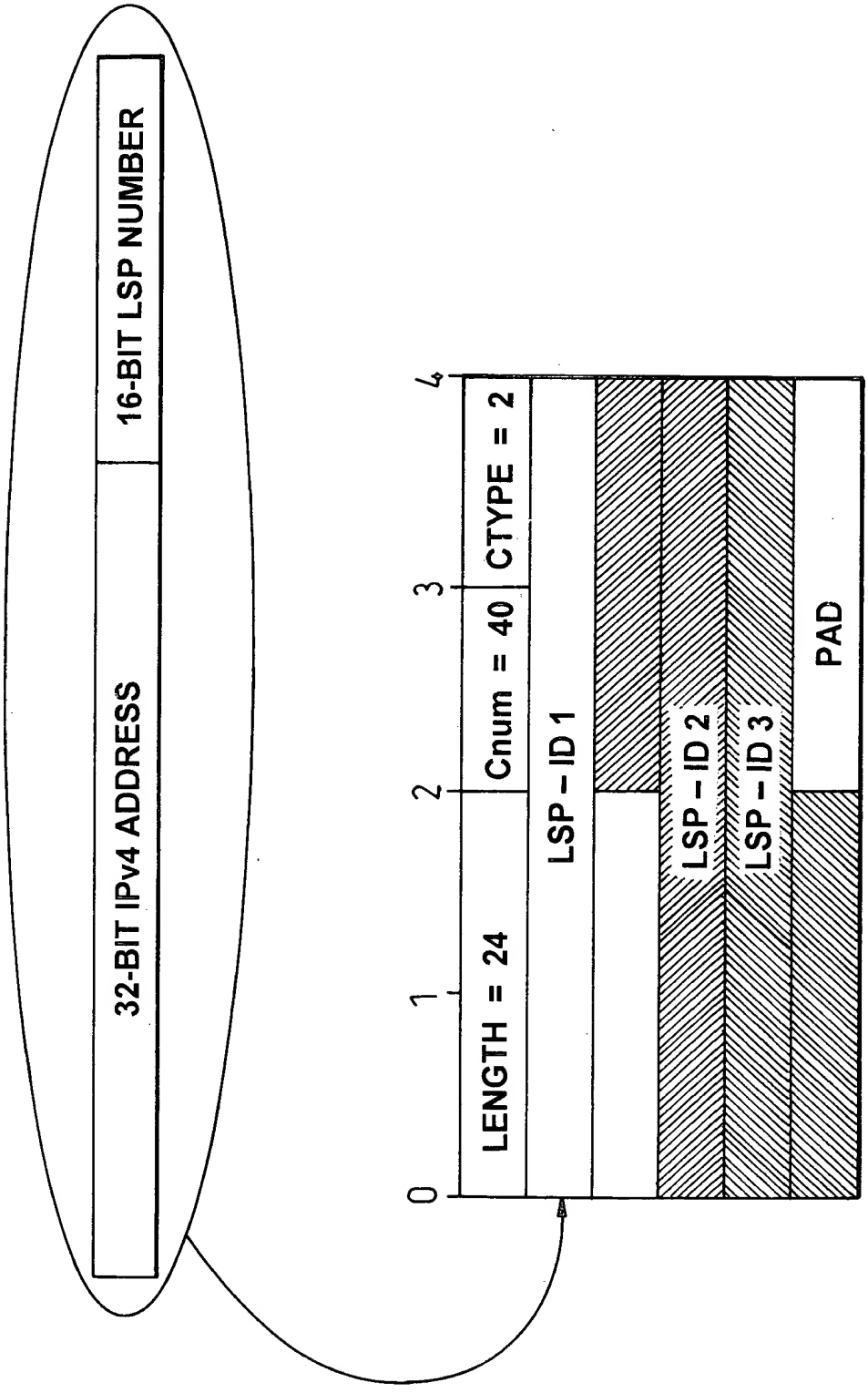

32-BIT IPv4 ADDRESS
16-BIT LSP NUMBER
0
1
2
3
4
LENGTH = 24
Cnum = 40
CTYPE = 2
LSP – ID 1
LSP – ID 2
LSP – ID 3
PAD

Fig. 7

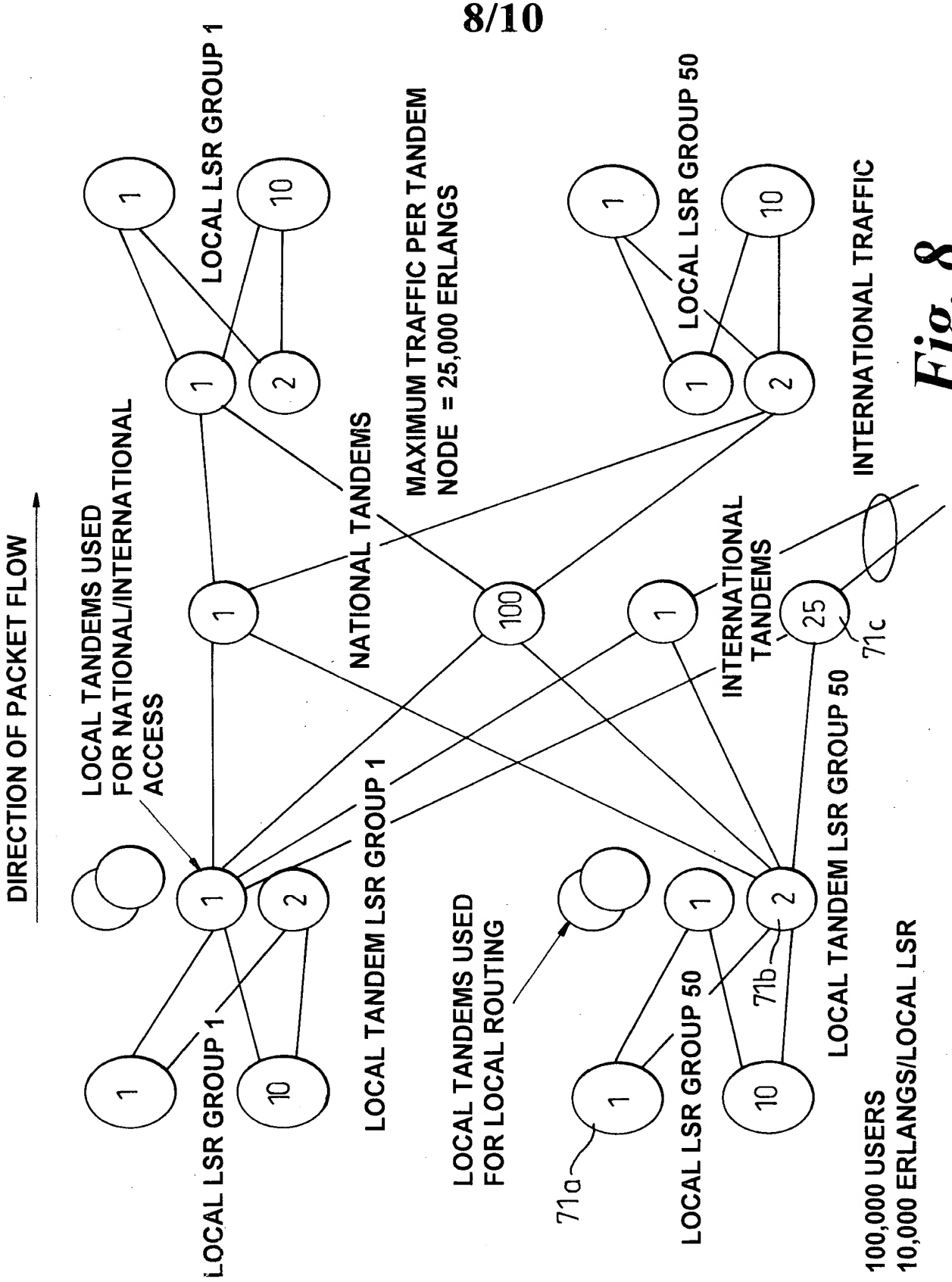
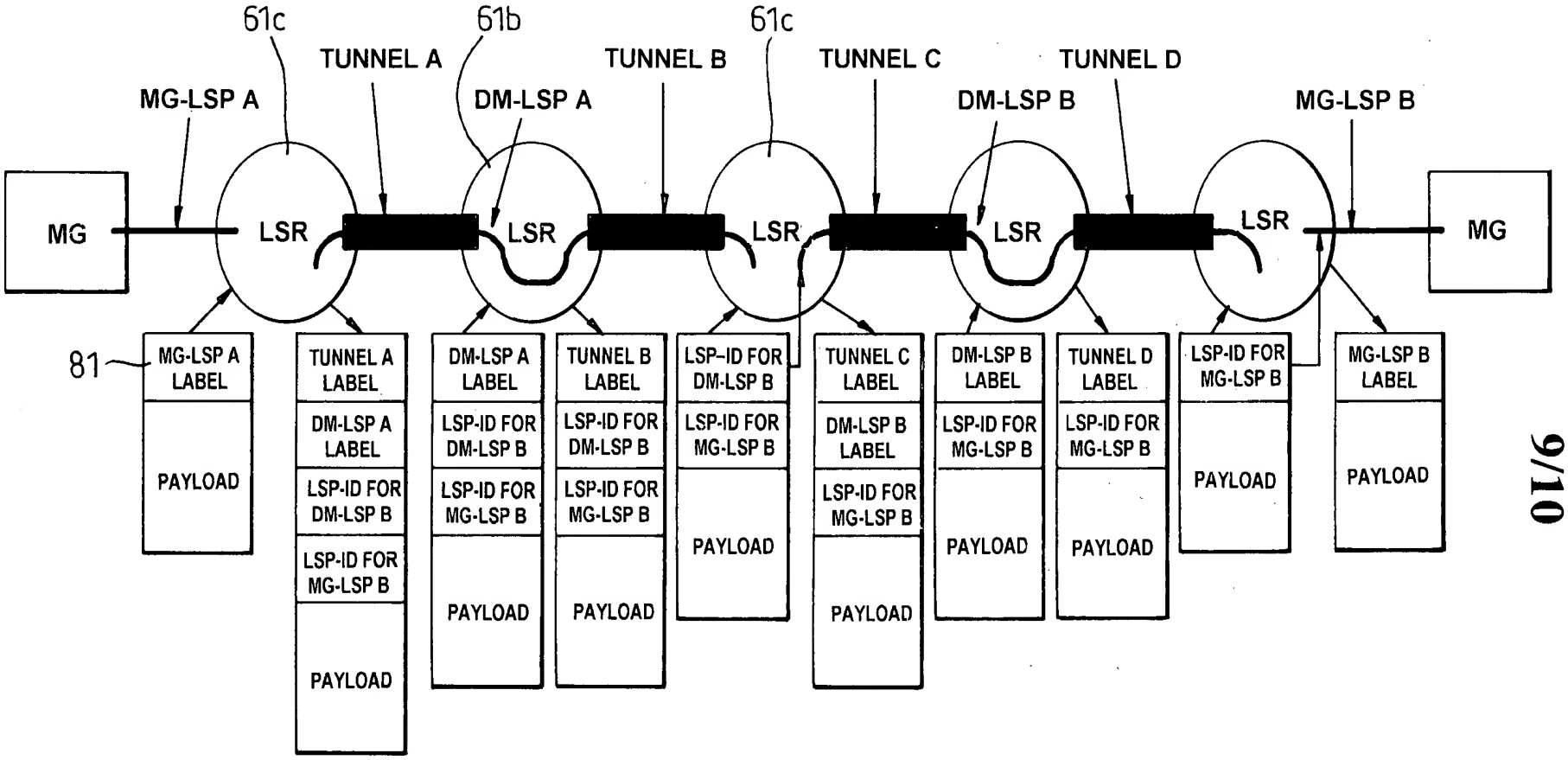

DIRECTION OF PACKET FLOW
LOCAL TANDEMS USED FOR NATIONAL/INTERNATIONAL ACCESS
LOCAL LSR GROUP 1
LOCAL TANDEM LSR GROUP 1
NATIONAL TANDEMS
MAXIMUM TRAFFIC PER TANDEM NODE = 25,000 ERLANGS
LOCAL LSR GROUP 50
LOCAL TANDEMS USED FOR LOCAL ROUTING
INTERNATIONAL TANDEMS
INTERNATIONAL TRAFFIC
LOCAL TANDEM LSR GROUP 50
71a
71b
71c
100,000 USERS
10,000 ERLANGS/LOCAL LSR

Fig. 8



EACH TUNNEL IS ASSUMED TO PERFORM PENULTIMATE HOP POPPING AT THE CORE LSR PRIOR TO THE VPN LSRs ILLUSTRATED ABOVE

Fig. 9

REPLACEMENT SHEET

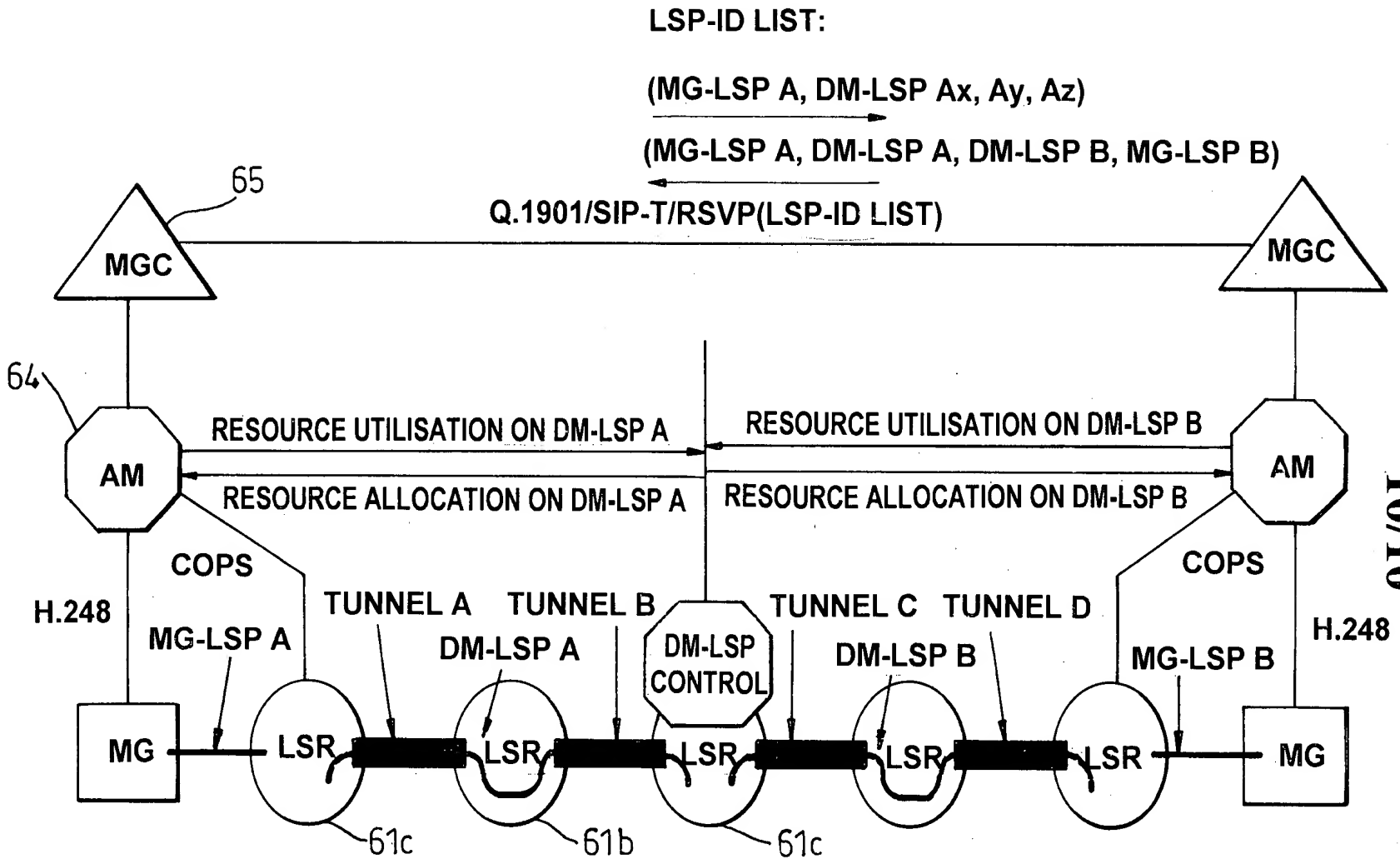


Fig. 10

REPLACEMENT SHEET